

**WHAT IS CLAIMED IS:**

1. A dispenser for razor blade cartridges, each cartridge including a blade unit and a cartridge connecting portion for connecting the cartridge to a handle, the dispenser comprising

a housing structure including a base and angled cartridge dividers that define sections for receiving respective cartridges and retaining the cartridges in predetermined positions that permit connection of a handle connecting structure on the handle to one of the cartridges as the handle is moved toward the cartridge;

each section comprising a latch shaped and positioned to interact with a corresponding resilient feature on the blade unit of the cartridge, the latch being sufficiently rigid to resist movement during removal of a cartridge from the dispenser.

2. The dispenser of claim 1 wherein each section comprises a pair of latches.

3. The dispenser of claim 2 wherein the latches are positioned on inner surfaces of opposed side walls of the housing.

4. The dispenser of claim 1 wherein the latch comprises a latch protrusion shaped to interact with a corresponding protrusion on the blade unit.

5. The dispenser of claim 2 or 3 wherein each latch comprises a latch protrusion shaped to interact with a corresponding protrusion on the blade unit.

6. The dispenser of claim 4 wherein the latch protrusion is positioned to retain the blade unit within the section by an interference fit with the blade unit protrusion.

7. The dispenser of claim 5 wherein each latch protrusion is positioned to retain the blade unit within the section by an interference fit with the corresponding blade unit protrusion.

8. The dispenser of claim 4 wherein the latch protrusion comprises an elongated ridge.

9. The dispenser of claim 4 or 8 wherein the latch protrusion includes a notch.

10. The dispenser of claims 4 or 8 wherein the latch protrusion includes a first surface positioned to inhibit vertical movement of the protrusion on the blade unit and a second surface positioned to inhibit horizontal movement of the protrusion on the blade unit.

11. The dispenser of claim 8 wherein the ridge includes an elongated angled surface configured to facilitate insertion of a blade unit into the respective section.

12. The dispenser of claim 8 wherein the ridge extends vertically along, and is attached to, an inner side wall of the dispenser.

13. The dispenser of claim 5 wherein each latch protrusion comprises an elongated ridge.

14. The dispenser of claim 5 or 13 wherein each latch protrusion includes a notch.

15. The dispenser of claims 5 or 13 wherein each latch protrusion includes a first surface positioned to inhibit vertical movement of the respective protrusion on the blade unit and a second surface positioned to inhibit horizontal movement of the respective protrusion on the blade unit.

16. The dispenser of claim 13 wherein each ridge includes an elongated angled surface configured to facilitate insertion of a blade unit into the respective section.

17. The dispenser of claim 13 wherein the ridges extend vertically along, and are attached to, opposed inner side walls of the dispenser.

18. The dispenser of claim 1 wherein the cartridge dividers include blade unit dividers that extend from the base, are generally perpendicular to the base, and define blade unit regions in which the blade units are received.

19. The dispenser of claim 18 wherein the cartridge dividers further include angled dividers that extend from the ends of respective blade unit dividers at acute angles with the base and define angled regions through which the blade units pass in delivery to and removal from the blade unit regions and in which the cartridge connecting structure is received.

20. The dispenser of claim 19 wherein an angled region of one section partially overlies a blade unit region of an adjacent section.

21. The dispenser of claim 1 wherein the dispenser has drainage holes associated with respective sections.

22. The dispenser of claim 1 further comprising raised members on which end structures of the cartridge are supported so as to avoid contact of the blades with the dispenser.

23. The dispenser of claim 1 further comprising a stabilizing feature, disposed on an upper edge of at least some of said cartridge dividers, constructed to engage the cartridge connecting portion and restrict movement of the cartridge connecting portion within an upper opening of the corresponding section.

24. The dispenser of claim 23 further comprising a feature, disposed on said upper edge, constructed to prevent contact between the stabilizing feature and a rear edge of the cartridge.

25. The dispenser of claim 23 wherein said upper edge is radiused to prevent contact between the stabilizing feature and a rear edge of the cartridge.

26. The dispenser of claim 22 wherein each of the raised members has a concave upper edge.

27. The dispenser of claim 26 wherein an upper portion of the concave upper edge of each raised member is adjacent a lower portion of a convex surface of a corresponding one of the cartridge dividers.

28. A combination comprising  
a cartridge dispenser comprising a housing structure including a base and dividers that define sections for receiving respective cartridges and retaining the cartridges in predetermined positions, each section comprising a latch that releasably holds a respective cartridge in a latched position within the section; and

a replaceable razor blade cartridge comprising a blade unit and a cartridge connecting structure for connecting the blade unit to a handle by movement of the handle toward the cartridge connecting structure, the blade unit including an elongated housing having a resilient latching portion for engagement by the latch on the cartridge dispenser.

29. The combination of claim 28 wherein the resilient latching portion comprises an elastomer.

30. The combination of claim 29 wherein the resilient latching portion further comprises a raised portion of the housing structure underlying the elastomer.

31. The combination of claim 28 wherein the latch is sufficiently rigid to resist movement during removal of the cartridge from the dispenser.

32. The combination of claim 28 wherein each section comprises a pair of latches.

33. The combination of claim 32 wherein the latches are positioned on inner surfaces of opposed side walls of the housing.

34. The combination of claim 28 wherein the latch comprises a latch protrusion shaped to interact with the resilient latching portion, which comprises a corresponding protrusion on the blade unit.

35. The combination of claim 32 or 33 wherein each latch comprises a latch protrusion shaped to interact with the resilient latching portion, which comprises a corresponding protrusion on the blade unit.

36. The combination of claim 34 wherein the latch protrusion is positioned to retain the blade unit within the section by an interference fit with the blade unit protrusion.

37. The combination of claim 35 wherein each latch protrusion is positioned to retain the blade unit within the section by an interference fit with the corresponding blade unit protrusion.

38. The combination of claim 34 wherein the latch protrusion comprises an elongated ridge.

39. The combination of claim 34 or 38 wherein the latch protrusion includes a notch.

40. The combination of claims 34 or 38 wherein the latch protrusion includes a first surface positioned to inhibit vertical movement of the protrusion on the blade unit

and a second surface positioned to inhibit horizontal movement of the protrusion on the blade unit.

41. The combination of claim 38 wherein the ridge includes an elongated angled surface configured to facilitate insertion of a blade unit into the respective section.

42. The combination of claim 38 wherein the ridge extends vertically along, and is attached to, an inner side wall of the dispenser.

43. The combination of claim 35 wherein each latch protrusion comprises an elongated ridge.

44. The combination of claim 35 or 43 wherein each latch protrusion includes a notch.

45. The combination of claims 35 or 43 wherein each latch protrusion includes a first surface positioned to inhibit vertical movement of the respective protrusion on the blade unit and a second surface positioned to inhibit horizontal movement of the respective protrusion on the blade unit.

46. The combination of claim 43 wherein each ridge includes an elongated angled surface configured to facilitate insertion of a blade unit into the respective section.

47. The combination of claim 43 wherein the ridges extend vertically along, and are attached to, opposed inner side walls of the dispenser.

48. The combination of claim 28 wherein the cartridge dividers include blade unit dividers that extend from the base, are generally perpendicular to the base, and define blade unit regions in which the blade units are received.

49. The combination of claim 48 wherein the cartridge dividers further include angled dividers that extend from the ends of respective blade unit dividers at acute angles with the base and define angled regions through which the blade units pass in delivery to and removal from the blade unit regions and in which the cartridge connecting structure is received.

50. The combination of claim 49 wherein an angled region of one section partially overlies a blade unit region of an adjacent section.

51. The combination of claim 28 wherein the dispenser has drainage holes associated with respective sections.

52. The combination of claim 28 further comprising raised members on which end structures of the cartridge are supported so as to avoid contact of the blades with the dispenser.

53. The combination of claim 28 further comprising a stabilizing feature, disposed on an upper edge of at least some of said cartridge dividers, constructed to engage the cartridge connecting portion and restrict movement of the cartridge connecting portion within an upper opening of the corresponding section.

54. The combination of claim 53 further comprising a feature, disposed on said upper edge, constructed to prevent contact between the stabilizing feature and a rear edge of the cartridge.

55. The combination of claim 54 wherein cartridge includes a trimming blade mounted along the rear edge of the cartridge.

56. The combination of claim 53 wherein said upper edge is radiused to prevent contact between the stabilizing feature and a rear edge of the cartridge.

57. The combination of claim 52 wherein each of the raised members has a concave upper edge.

58. The combination of claim 57 wherein an upper portion of the concave upper edge of each raised member is adjacent a lower portion of a convex surface of a corresponding one of the cartridge dividers.

59. The combination of claim 28 wherein the width WB of the blade unit is from about 1 to 2% greater than the width WD of the dispenser.

60. The combination of claim 28 wherein the width WB of the blade unit is preferably from about 0.2 to 0.8 mm greater than the width WD of the dispenser.

61. A method of using a replaceable razor cartridge comprising  
storing a cartridge in a dispenser comprising a housing structure including a base and angled cartridge dividers that define sections for receiving respective cartridges and retaining the cartridges in predetermined positions, each section comprising a latch shaped and positioned to interact with a corresponding resilient feature on the blade unit of the cartridge, each latch being sufficiently rigid to resist movement during removal of a cartridge from the dispenser;

moving a handle connecting structure of a handle toward cartridge connecting structure of the cartridge to connect the cartridge to the handle; and

removing the cartridge from the dispenser while connected to the handle by retracting the handle from the dispenser.

62. The method of claim 61 further comprising, after use of the razor, replacing the cartridge in the same or a different dispenser by moving the handle and connected cartridge into the dispenser, disconnecting the cartridge from the handle, and retracting the handle while the cartridge remains in the dispenser.



63. A method of connecting a replaceable razor cartridge to a handle in a proper orientation, the cartridge including a blade unit and a cartridge connecting structure for connecting the cartridge to the handle, the method comprising

storing the cartridge in an angled region of a dispenser between a front angled divider and a rear angled divider that are generally parallel to each other, and

moving a handle connecting structure of a handle toward the cartridge connecting structure of the cartridge to connect the cartridge to the handle,

wherein the handle connecting structure and cartridge connecting structure include corresponding asymmetrical features that will interfere with each other when the handle is in an improper orientation, and mate when the handle is in a proper orientation.

64. A method of making a dispenser for razor blade cartridges comprising:  
permanently connecting a bottom plastic part and a top plastic part that together define sections for receiving respective razor blade cartridges, the bottom part and/or top part including features configured to inhibit relative movement of the bottom and top part during and after the connecting step.

65. The method of claim 64 wherein the top part and the bottom part are connected by ultrasonically welding.